

### **CLAIMS**

1. A method for transmitting, between a monitoring circuit integrated to a microprocessor and an analysis tool, digital messages each comprising at least one data packet, comprising the steps of:

5 a/ dividing each data packet into successive segments of same predetermined size, each segment being classified according to one or the other of the five following types of segment:

- segment containing a message start (SM);
- segment containing intermediary data (NT);
- segment containing a packet end (EP);
- 10 - segment containing a message end (EM); or
- empty segment (ID);

b/ sending at the same time as each segment an identification signal (MSEO) characterizing the type difference between the considered segment and the previous segment; and

15 c/ reconstituting the packets of each message by arranging end to end the segments containing data of a same packet;

characterized in that a segment containing both the start and the end of a message is classified as being a segment containing a message end (EM), and a segment containing both the start of a message and the end of a first  
20 packet of the message is classified as being a segment containing a packet end (EP).

2. The method of claim 1, in which:

25 a segment containing a message start (SM) or an empty segment (ID) may be transmitted after a segment containing a message end (EM) or an empty segment (ID);

a segment containing intermediary data (NT) may be transmitted after a segment containing a message start (SM) or intermediary data (NT) or a packet end (EP); and

30 a segment containing a packet end (EP) or a message end (EM) may be transmitted after a segment of any type.

3. The method of claim 2, in which the identification signal (MSEO) has:

5 a first value (00) if the transmitted segment contains a message start (SM) or intermediary data (NT);

a second value (01) if the transmitted segment contains a packet end (EP);

10 a third value (10) if the transmitted segment contains a message end (EM) and if the previous segment contained a message end (EM) or was an empty segment (ID); and

a fourth value (11) if the transmitted segment is empty (ID), or if the transmitted segment contains a message end (EM) and if the previous message contained a message start (SM), intermediary data (NT), or a packet end (EP).

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4. A device for transmitting, between a monitoring circuit integrated to a microprocessor and an analysis tool, digital messages, each of which comprises at least one data packet, comprising:

20 a means (18) for dividing each data packet into successive segments of same predetermined size, each segment being classified according to one or the other of the five following segment types:

- segment containing a message start (SM);
- segment containing intermediary data (NT);
- segment containing a packet end (EP);
- 25 - segment containing a message end (EM); or
- empty segment (ID);

a means (18) for sending at the same time as each segment an identification signal characterizing the type difference between the considered segment and the previous segment; and

30 a means (24) for reconstituting the packets of each message by arranging end to end the segments containing data of a same packet;

characterized in that the means (18) for dividing each data packet classifies a segment containing both the start and the end of a message as being a segment containing a message end (EM), and classifies a segment containing both the start of a message and the end of a first packet of the  
5 message as being a segment containing a packet end (EP).